

Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. **(Original)** A semiconductor device comprising:
a logic circuit having a thin film transistor over an insulating surface; and
a detection means which detects an operating frequency of the logic circuit and outputs a detection result to a threshold value control circuit,
wherein the thin film transistor comprises a first gate electrode inputted with a logic signal and a second gate electrode inputted with a threshold value control signal from the threshold value control circuit.
2. **(Original)** The semiconductor device according to claim 1,
wherein a semiconductor thin film is provided over the second gate electrode and the first electrode is provided over the semiconductor thin film.
3. **(Original)** A CPU provided with the semiconductor device set forth in claim 1.
4. **(Original)** An image processing circuit provided with the semiconductor device set forth in claim 1.
5. **(Original)** An electronic device provided with the semiconductor device set forth in claim 1.
6. **(Original)** A semiconductor device comprising:
a logic circuit having a thin film transistor over an insulating surface; and
a detection means which detects an operating frequency of the logic circuit and outputs a detection result to a threshold value control circuit,

wherein the thin film transistor comprises a first gate electrode inputted with a logic signal and a second gate electrode inputted with a threshold value control signal from the threshold value control circuit; and

wherein an amount of a current flowing between a source electrode and a drain electrode of the thin film transistor is controlled by the threshold value control signal.

7. **(Original)** The semiconductor device according to claim 6,
wherein a semiconductor thin film is provided over the second gate electrode and the first gate electrode is provided over the semiconductor thin film.

8. **(Original)** A CPU provided with the semiconductor device set forth in claim 6.

9. **(Original)** An image processing circuit provided with the semiconductor device set forth in claim 6.

10. **(Original)** An electronic device provided with the semiconductor device set forth in claim 6.

11. **(Original)** A semiconductor device comprising:
a logic circuit having a thin film transistor over an insulating surface; and
a recording medium which detects an operating frequency of the logic circuit and stores a program for outputting a detection result to a threshold value control circuit,
wherein the thin film transistor comprises a first gate electrode inputted with a logic signal and a second gate electrode inputted with a threshold value control signal from the threshold value control circuit.

12. **(Original)** The semiconductor device according to claim 11,
wherein a semiconductor thin film is provided over the second gate electrode and the first gate electrode is provided over the semiconductor thin film.

13. **(Original)** A CPU provided with the semiconductor device set forth in claim 11.

14. **(Original)** A image processing circuit provided with the semiconductor device set forth in claim 11.

15. **(Original)** An electronic device provided with the semiconductor device set forth in claim 11.

16. **(Original)** A semiconductor device comprising:
a logic circuit having a thin film transistor over an insulating surface; and
a recording medium which detects an operating frequency of the logic circuit and stores a program for outputting a detection result to a threshold value control circuit,
wherein the thin film transistor comprises a first gate electrode inputted with a logic signal and a second gate electrode inputted with a threshold control signal from the threshold value control circuit; and
wherein an amount of a current flowing between a source electrode and a drain electrode of the thin film transistor by the threshold value control signal.

17. **(Original)** The semiconductor device according to claim 16,
wherein a semiconductor thin film is provided over the second gate electrode and the first gate electrode is provided over the semiconductor thin film.

18. **(Original)** A CPU provided with the semiconductor device set forth in claim 16.

19. **(Original)** An image processing circuit provided with the semiconductor device set forth in claim 16.

20. **(Original)** An electronic device provided with the semiconductor device set forth in claim 16.

21. **(Withdrawn)** A driving method of a semiconductor device comprising:
a logic circuit having a thin film transistor over an insulating surface; and
a detection means which detects an operating frequency of the logic circuit and outputs
a detection result to a threshold value control circuit,
wherein the detection means discriminates a first mode or a second mode; and
wherein the threshold value control circuit outputs a threshold value control signal
according to the first or the second mode to the logic circuit.

22. **(Currently Amended)** A driving method of a semiconductor device comprising:
a logic circuit having a thin film transistor over an insulating surface; and
a detection means which detects an operating frequency of the logic circuit and outputs
a detection result to a threshold value control circuit,
wherein the detection means discriminates a pending mode or an active mode; and
wherein the threshold value control ~~circuit~~ ~~outputs~~ ~~a~~ ~~[[the]]~~ threshold value
control ~~circuit~~ signal which raises a threshold value of the thin film transistor of ~~[[to]]~~ the logic
circuit when the detection means discriminates the pending mode.

23. **(Original)** A semiconductor device comprising:
a substrate having an insulating surface;
a logic circuit having a thin film transistor over the substrate;
a detection means for detecting an operating frequency of the logic circuit, electrically
connected to the logic circuit; and
a threshold value control circuit electrically connected to the detection means.

24. **(Withdrawn)** A semiconductor device comprising:
a substrate having an insulating surface;
a logic circuit having a thin film transistor over the substrate;
an address comparator electrically connected to the logic circuit;
a counter electrically connected to the address comparator;
a discrimination circuit electrically connected to the counter; and

a threshold value control circuit electrically connected to the discrimination circuit.

25. (Original) A semiconductor device comprising:

a substrate having an insulating surface;

a logic circuit having a thin film transistor over the substrate;

a detection means for detecting an operating frequency of the logic circuit, electrically connected to the logic circuit; and

a threshold value control circuit which is electrically connected to the detection means, wherein the thin film transistor comprises a plurality of gate electrodes; and

wherein the threshold value control circuit is connected to at least one of the plurality of gate electrodes.

26. (Withdrawn) A semiconductor device comprising:

a substrate having an insulating surface;

a logic circuit having a thin film transistor over the substrate;

an address comparator electrically connected to the logic circuit;

a counter electrically connected to the address comparator;

a discrimination circuit electrically connected to the counter; and

a threshold value control circuit electrically connected to the discrimination circuit,

wherein the thin film transistor comprises a plurality of gate electrodes; and

wherein the threshold value control circuit is electrically connected to at least one of the plurality of gate electrodes.

27. (Previously Presented) The semiconductor device according to claim 1, wherein the detection means comprises:

an address comparator electrically connected to the logic circuit;

a counter electrically connected to the address comparator; and

a discrimination circuit electrically connected to the counter.

28. **(Previously Presented)** The semiconductor device according to claim 6, wherein the detection means comprises:

- an address comparator electrically connected to the logic circuit;
- a counter electrically connected to the address comparator; and
- a discrimination circuit electrically connected to the counter.

29. **(Withdrawn)** The semiconductor device according to claim 22, wherein the detection means comprises:

- an address comparator electrically connected to the logic circuit;
- a counter electrically connected to the address comparator; and
- a discrimination circuit electrically connected to the counter.

30. **(Previously Presented)** The semiconductor device according to claim 23, wherein the detection means comprises:

- an address comparator electrically connected to the logic circuit;
- a counter electrically connected to the address comparator; and
- a discrimination circuit electrically connected to the counter.